



State of Arizona  
Department of Education

### Coursework Requirements for the Sciences (7-12)

#### Highly Qualified Criteria to Meet the 24 Credit Hour Requirements

**Note:** All coursework must be 100 level or above from an accredited institution of higher education.

**General Science-** A valid Secondary Certificate with 12 semester hours of coursework in Life Sciences and 12 semester hours of coursework in Physical/Earth/Space Sciences. Courses may be accepted from the following categories below:

#### Life Sciences (12 semester hours)

Agriculture  
Anatomy  
Biology  
Botany  
Biochemistry  
Ecology  
Environmental Science  
Microbiology  
Physiology  
Zoology  
Kinesiology

#### Physical/Earth/Space Sciences (12 semester hours)

Astronomy  
Chemistry  
Earth Science  
Geology  
Meteorology  
Physical Geography  
Physics  
Oceanography  
Biochemistry  
Physical Science

---

**Physical Science-** A valid Secondary Certificate with 24 semester hours from the following areas:

Biochemistry  
Chemistry  
Physical Science  
Physics

---

**Earth/Space Science-** A valid Secondary Certificate with 24 semester hours in science from the following areas:

Agriculture (must be dealing with soils and **NOT** livestock or plants)  
Astronomy  
Earth Science  
Environmental (must be dealing with soils or the Earth and **NOT** life)  
Forestry (must be dealing with soils or the Earth and **NOT** life)  
Geology  
Meteorology  
Physical Geography  
Oceanography  
Ecology (must be dealing with soils or the Earth and **NOT** life)

**\*Please Note: The AEPA for Earth Science became available July, 2011.**

---

**Integrated Science-** Must be highly qualified in General Science content area- (see list above).

**Forensic Science-** Must be highly qualified in General Science content area- (see list above).

**Environmental Science-** Must be highly qualified in General Science or Earth Science content area- (see list above).

**Anatomy and Physiology (A&P)-** Must be highly qualified in Biology- highly recommend that coursework be directly relevant to anatomy and physiology in order to support instructional content competency.

For further information or questions related to the 24 credit requirement, please contact the Effective Teachers & Leaders Unit at (602) 364-1842.